

AIR QUALITY PERMIT

Issued To: Columbus Concrete, Inc.
P.O. Box 1114
Columbus, MT 59019

Permit #3379-00
Application Complete: 02/01/05
Preliminary Determination Issued: 03/09/05
Department Decision Issued: 03/25/05
Permit Final: 04/12/05
AFS #: 777-3379

An air quality permit, with conditions, is hereby granted to Columbus Concrete, Inc. (Columbus), pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and the Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

Section I: Permitted Facilities

A. Permitted Equipment

Columbus operates a portable truck mix concrete batch plant. A complete list of the permitted equipment is contained in Section I.A of the permit analysis.

B. Plant Location

Columbus operates a portable truck mix concrete batch plant operation, which will originally locate in Section 20, Township 2 South, Range 20 East, in Stillwater County, Montana. However, Permit #3379-00 applies while operating at any location in Montana, except within those areas having a Department of Environmental Quality (Department) approved permitting program, those areas considered tribal lands, or those areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.* An addendum to this air quality permit will be required for locations in or within 10 km of certain PM₁₀ nonattainment areas.

Section II: Limitations and Conditions

A. Emission Control Requirements

1. Columbus shall install, operate, and maintain the fabric filter dust collector, a rubber boot load-out spout as specified in their Montana Air Quality Permit and all supporting documentation (ARM 17.8.752):
 - a. Columbus shall install, operate, and maintain the fabric filter dust collector on every cement and cement supplement silo ventilation opening; and
 - b. Columbus shall install, operate, and maintain the rubber boot load-out spout on every product loadout opening on the concrete plant, where cementations and aggregate materials are transferred for mixing.
2. Columbus shall not cause or authorize to be discharged into the atmosphere from the ready mix plant:

- a. Any vent emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304 and ARM 17.8.752).
 - b. Any fugitive emissions from the source, or from any material transfer operations, including, but not limited to, truck loading or unloading, which exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.308 and ARM 17.8.752).
3. Columbus shall not cause or authorize to be discharged into the atmosphere from any street, road, or parking lot any visible fugitive emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes and must take reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308 and ARM 17.8.752).
4. Columbus shall treat all unpaved portions of the haul roads, access roads, parking lots, and the general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.3 (ARM 17.8.752).
5. Total concrete plant production shall be limited to 219,000 cubic yards of concrete during any rolling 12-month time period (ARM 17.8.749).
6. If the permitted equipment is used in conjunction with any other equipment owned or operated by Columbus, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons of emissions during any rolling 12-month time period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).

B. Emissions Monitoring

1. Columbus shall inspect the fabric filter dust collector and its vents, which are used for controlling emissions from the silo and weigh hopper, every 6 months of operation to ensure that each collector is operating at the optimum efficiency. Records of inspections, repairs, and maintenance shall be kept for a minimum of 5 years (ARM 17.8.749).
2. Columbus shall maintain on-site records of inspections, repairs, and maintenance. All records compiled in accordance with this permit shall be maintained by Columbus as a permanent business record for at least 5 years following the date of the measurement, shall be submitted to the Department upon request, and shall be available at the plant site for inspection by the Department (ARM 17.8.749).

C. Testing Requirements

1. All compliance source tests shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
2. The Department may require testing (ARM 17.8.105).

D. Operational Reporting Requirements

1. If this concrete batch plant is moved to another location, an Intent to Transfer Form must be sent to the Department. In addition, a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move. The Intent to Transfer Form and the proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.765).
2. Columbus shall maintain on-site records showing daily hours of operation and daily production rates, for the last 12 months. All records compiled in accordance with this permit must be maintained by Columbus as a permanent business record for at least 5 years following the date of the measurement, must be submitted to the Department upon request, and must be available at the plant site for inspection by the Department (ARM 17.8.749).
3. Columbus shall supply the Department with annual production information for all emission points, as required by the Department, in the annual emission inventory request. The request will include, but is not limited to, all sources identified in the most recent emission inventory report and sources identified in Section I.A of the permit analysis.

Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

4. Columbus shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emission unit. The notice must be submitted to the Department, in writing, 10 days prior to startup or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(l)(d) (ARM 17.8.745).
5. Columbus shall document, by month, the amount of concrete produced. By the 25th day of each month Columbus shall calculate the total amount of concrete produced during the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.5. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

Section III: General Conditions

- A. Inspection – Columbus shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions

- related to this permit.
- B. Waiver – The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if Columbus fails to appeal as indicated below.
 - C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Columbus of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided for in ARM 17.8.740, *et seq.* (ARM 17.8.756)
 - D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401, *et seq.*, MCA.
 - E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.
 - F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.
 - G. Permit Fee – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by Columbus may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
 - H. Construction Commencement – Construction must be begin within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked (ARM 17.8.762).
 - I. The Department may modify the conditions of this permit based on local conditions of any future site. These factors may include, but are not limited to, local terrain, meteorological conditions, proximity to residences, etc.
 - J. Columbus shall comply with the conditions contained in this permit while operating in any location in Montana, except within those areas that have a Department approved permitting program.

Permit Analysis
Columbus Concrete, Inc.
Permit #3379-00

I. Introduction

A. Permitted Equipment

Columbus Concrete, Inc. (Columbus) operates a portable truck mix concrete batch plant, which includes an electrical powered 1950s truck mix concrete batch plant (maximum capacity of 25 cubic yards per hour (yd³/hr)) and associated equipment. Particulate emissions from the cement silo are controlled by a fabric filter dust collector. A rubber boot load-out spout controls particulate emissions from the cement batcher.

B. Process Description

For a typical operational setup, stockpiles of sand and gravel for concrete production are stored on site. A loader transfers the sand and gravel from the stockpiles to a weight hopper and the sand and gravel is then conveyed into the batch plant. The cement silo transfers the cement into the batch plant where water is added. The sand, gravel, cement, and water are then loaded into mixing trucks where the materials are mixed together to form concrete. The concrete is then transferred to various construction operations.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department of Environmental Quality (Department). Upon request, the Department will provide references for locations of complete copies of all applicable rules and regulations, or copies where appropriate.

A. ARM 17.8, Subchapter 1 - General Provisions, including, but not limited to:

1. ARM 17.8.101 Definitions. This rule is a list of applicable definitions used in this subchapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary, using methods approved by the Department.
3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Montana Clean Air Act, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

Columbus shall comply with all requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs, which can be expected to create emissions in excess of any applicable emission limitation, or to continue for a period greater than 4 hours.
5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

B. ARM 17.8, Subchapter 2 - Ambient Air Quality, including, but not limited to:

1. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
2. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
3. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
4. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
5. ARM 17.8.223 Ambient Air Quality Standard for PM₁₀

Columbus must comply with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3 - Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, Columbus shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.
3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this section.
4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.
5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this section.
6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank truck or trailer is equipped with a vapor loss control device as described in (1) of this rule.

7. ARM 17.8.340 Standards of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR 60, Standards of Performance for New Stationary Sources (NSPS). The owner or operator of any stationary source or modification, as defined and applied in 40 CFR Part 60, shall comply with the standards and provisions of 40 CFR Part 60.

This truck mix concrete plant consists of a 1950s Truck Mix Plant and associated equipment. NSPS (40 CFR Part 60, General Provisions and Subpart F, Portland Cement Plants) does not apply because the truck mix plant does not meet the definition of an affected facility.

D. ARM 17.8, Subchapter 5 - Air Quality Permit Application, Operation, and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that Columbus submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. Columbus submitted the appropriate permit application fee as required for the current permit action.
2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department. This operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, as described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.

E. ARM 17.8, Subchapter 7 - Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit alteration to construct, alter or use any asphalt plant, crusher or screen that has the Potential to Emit (PTE) greater than 15 tons per year of any pollutant. Columbus has a PTE of greater than 15 tons per year of total particulate matter; therefore, an air quality permit is required.
3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit Program.

4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, alteration or use of a source. Columbus submitted the required permit application for the current permit action. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. Columbus submitted an affidavit of publication of public notice for the January 27, 2005, issue of the *Stillwater County News*, a newspaper of general circulation in the Town of Columbus, in Stillwater County, as proof of compliance with the public notice requirements.
6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that Best Available Control Technology (BACT) shall be utilized. The required BACT analysis is included in Section IV of this permit analysis.
8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Columbus of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.
12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of Columbus, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).

13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
14. ARM 17.8.765 Transfer of Permit. (1) This rule states that an air quality permit may be transferred from one location to another if the Department receives a complete notice of Intent to Transfer location, the facility will operate in the new location for less than 1 year, the facility will comply with the FCAA and the Clean Air Act of Montana, and the facility complies with other applicable rules. (2) This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to the Department.

F. ARM 17.8, Subchapter 8 - Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.
2. ARM 17.8.818 Review of Major Stationary Sources and Major Modification--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source because it is not listed and does not have a PTE of greater than 250 tons per year (excluding fugitive emissions) of any air pollutant.

G. ARM 17.8, Subchapter 12 - Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:
 - a. PTE > 100 tons/year of any pollutant,
 - b. PTE > 10 tons/year of any one Hazardous Air Pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or a lesser quantity as the Department may establish by rule, or
 - c. PTE > 70 tons/year of PM₁₀ in a serious PM₁₀ nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #3379-00 for Columbus, the following conclusions were made:

- a. The facility's PTE is less than 100 tons/year for any air pollutant.
- b. The facility's PTE is less than 10 tons/year of any one HAP and less than 25 tons/year of all HAPs.
- c. This source is not located in a serious PM₁₀ nonattainment area.
- d. This facility is not subject to any current NSPS standards.
- e. This facility is not subject to any current NESHAP standards.
- f. This source is not a Title IV affected source nor a solid waste combustion unit.
- g. This source is not an EPA designated Title V source.

This Columbus facility is not a major stationary source since it is not a listed source and the facility's PTE is less than 250 tons per year of any pollutant (excluding fugitive emissions).

III. Emission Inventory

Source	Tons/Year	
	PM	PM ₁₀
Aggregate Delivery to Ground Storage	0.70	0.34
Sand Delivery to Ground Storage	0.16	0.05
Aggregate Transfer to Conveyor	0.70	0.34
Sand Transfer to Conveyor	0.16	0.05
Cement Unloading to Elevated Storage Silo	.02	0.01
Weight Hopper Loading of Sand/Aggregate	0.92	0.43
Truck Mix Loading of Cement/Sand/Aggregate	45.12	11.10
Haul Roads	2.74	1.23
Total	50.52	13.55

A complete emission inventory for Permit #3379-00 is on file with the Department.

IV. BACT Determination

A BACT determination is required for any new or altered source. Columbus shall install on the new or altered source the maximum air pollution control capability that is technologically practicable and economically feasible, except that BACT shall be used.

A. Area Source Fugitives Emissions

Two types of emissions controls are readily available and used for dust suppression of fugitive emissions at the site, and fugitive emissions for the surrounding area of operation. These two control methods are water and chemical dust suppressant. Chemical dust suppressant could be used for dust suppression on the area surrounding the operation. However, because water is more readily available, is more cost effective, is

equally effective as chemical dust suppressant, and is more environmentally friendly, water has been identified as the most appropriate method of pollution control of particulate emissions for the general plant area. In addition, water suppression has been required of recently permitted similar sources. Columbus may, however, use chemical dust suppressant to assist in controlling particulate emissions from the surrounding plant area.

Columbus shall not cause or authorize to be discharged into the atmosphere from any non-NSPS affected equipment, any visible emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes. Columbus must also take reasonable precautions to limit the fugitive emissions of airborne particulate matter from haul roads, access roads, parking areas, and the general area of operation. Columbus is required to have water available on site (at all times) and to apply the water, as necessary, to maintain compliance with the opacity and reasonable precaution limitations. Columbus may also use chemical dust suppression, in order to maintain compliance with emissions limitations in Section I.A of Permit #3379-00. The Department determined that using water spray bars and water to maintain compliance with the opacity requirements and reasonable precaution limitations constitutes BACT for the crushing/screening operation.

B. Cement Fugitives

All visible emissions from any cement and cement supplement silo (or vent), truck loading or unloading operations, or any material transferring operations shall be limited to less than 20% opacity. Columbus shall use a fabric filter dust collector for the cement silo and Columbus shall use a rubber boot load-out spout on the cement batcher. The Department determined that using a fabric filter dust collector and a load-out spout to maintain compliance with the opacity limitations constitutes BACT for these sources.

V. Existing Air Quality

Permit #3379-00 is issued for the operation of a portable truck mix concrete batch plant to be originally located in Section 20, Township 2 South, Range 20 East, in Stillwater County, Montana. This facility would be allowed to operate at this proposed site and any other areas designated as attainment or unclassified for all National Ambient Air Quality Standards (NAAQS); excluding counties that have a Department approved permitting program, areas considered Tribal Lands, or areas in or within 10 kilometers (km) of certain PM₁₀ nonattainment areas. The permit contains operational conditions and limitations that would protect air quality for this site and the surrounding area. Also, this facility is a portable source that would operate on an intermittent and temporary basis, so any effects to air quality will be minor and short-lived.

VI. Ambient Air Quality Impacts

This permit is for a portable truck mix concrete batch plant to be located in various locations around Montana. The amount of controlled particulate emissions generated by this project should not cause concentrations of PM₁₀ in the ambient air that exceed any set standard. In addition, this source is portable and any air quality impacts will be short-lived.

VII. Taking or Damaging Implication Analysis

As required by 2-10-101 through 105, MCA, the Department conducted a private property taking and damaging assessment and determined there are no taking or damaging implications.

VIII. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act, was completed for this project. A copy is attached.

DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
Air Resources Management Bureau
P.O. Box 200901, Helena, Montana 59620
(406) 444-3490

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued For: Columbus Concrete, Inc.
P.O. Box 1114
Columbus, MT 59019

Air Quality Permit Number: 3379-00

Preliminary Determination Issued: March 9, 2005

Department Decision Issued: March 25, 2005

Permit Final: April 12, 2005

1. *Legal Description of Site:* This permit is for the operation of a portable truck mix concrete batch plant and associated equipment to be initially located in Section 20, Township 2 South, Range 20 East, in Stillwater County, Montana. Permit #3379-00 would apply while operating at any location in Montana, except within those areas having a Department-approved permitting program, areas considered tribal lands, or areas in or within 10 km of certain PM₁₀ nonattainment areas. *A Missoula County air quality permit would be required for locations within Missoula County, Montana.* An addendum to this air quality permit would be required for locations in or within 10 km of certain PM₁₀ nonattainment areas.
2. *Description of Project:* Columbus submitted a permit application for the construction and operation of a portable truck mix concrete batch plant, which would include an electrical powered 1950s truck mix concrete batch plant (maximum capacity of 25 yd³/hr) and associated equipment. Particulate emissions from the cement silo would be controlled by a fabric filter dust collector. Particulate emissions from the cement batcher controlled by a rubber boot load-out spout.
3. *Objectives of the Project:* Columbus, in an effort to increase business and revenue for the company through the construction of the proposed truck mix concrete batch plant and associated equipment, submitted a complete application for the proposed equipment. The concrete batch plant would be used to supply wet mix concrete for sale and use in various construction operations and would allow Columbus to operate the portable equipment at various locations throughout Montana, including the proposed initial site location.
4. *Additional Project Site Information:* In many cases, the truck mix concrete batch plant operation may move to a general site location, or open cut pit, which has been previously permitted through the Industrial and Energy Minerals Bureau (IEMB). If this were the case, a more extensive EA for the site would have been conducted and would be found in the Mined Land Reclamation Permit for that specific site.
5. *Alternatives Considered:* In addition to the proposed action, the Department also considered the "no-action" alternative. The "no-action" alternative would deny issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the "no-action" alternative to be appropriate because Columbus demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no-action" alternative was eliminated from further consideration.

6. *A Listing of Mitigation, Stipulations, and Other Controls:* A list of enforceable conditions, including a BACT analysis, would be contained in Permit #3379-00.
7. *Regulatory Effects on Private Property:* The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions would be reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.
8. *The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The “no action alternative” was discussed previously.*

		Major	Moderate	Minor	None	Unknown	Comments Included
A.	Terrestrial and Aquatic Life and Habitats			X			yes
B.	Water Quality, Quantity, and Distribution			X			yes
C.	Geology and Soil Quality, Stability, and Moisture			X			yes
D.	Vegetation Cover, Quantity, and Quality			X			yes
E.	Aesthetics			X			yes
F.	Air Quality			X			yes
G.	Unique Endangered, Fragile, or Limited Environmental Resource			X			yes
H.	Demands on Environmental Resource of Water, Air, and Energy			X			yes
I.	Historical and Archaeological Sites			X			yes
J.	Cumulative and Secondary Impacts			X			yes

Summary of Comments on Potential Physical and Biological Effects: The following comments have been prepared by the Department.

A. Terrestrial and Aquatic Life and Habitats

Terrestrials and aquatic life would use the areas in which the concrete batch plant would operate. While deposition of particles would occur, as explained in Section 8.F. of this EA, due to the relatively small size and temporary nature of the operation, dispersion characteristics of particles and the area, and conditions placed in Permit #3379-00, any impacts from would be minor. Further, air emissions would have only minor effects on terrestrial life because facility emissions would be well dispersed in the area of operations (see Section 8.F of this EA) and the plant site would be graveled to reduce fugitive emissions. Therefore, only minor and temporary effects to terrestrial and aquatic life and habitat would be expected from the proposed facility operations.

B. Water Quality, Quantity, and Distribution

Although there would be an increase in air emissions in the area where the concrete batch plant would operate, there would be little, if any impacts on water quality, quantity, and distribution because of the relatively small size and temporary nature of the operation. While deposition from air emissions would occur, the Department determined that any impacts from deposition would be minor. As described in Section 8.F. of this EA, due to the small amount of emissions, dispersion characteristics of particles and the area, and conditions placed in Permit #3379-00, the impacts on water quality from the air emissions from the concrete batch plant would be minor.

Further, water would be required for making the concrete and for dust suppression. However, as a result of the relatively small size and temporary nature of the operation, any impacts from the operation of the concrete batch plant on water quantity and distribution would be minor. Any accidental spills or leaks from equipment would be required to be handled according to the

appropriate environmental regulations in an effort to minimize any potential adverse impact on the immediate and surrounding area. Overall, the concrete batch plant operations would result in only minor impacts to water quality, quantity, and distribution.

C. Geology and Soil Quality, Stability, and Moisture

There would be minor impacts to the geology and soil quality, stability, and moisture near the plant's operational area due to facility construction, increased vehicle traffic, the use of water to control dust, and deposition of pollutants from concrete batch operations. As explained in Section 8.F. of this EA, the relatively small size and temporary nature of the operation, dispersion characteristics of particles and the area, and conditions placed in Permit #3379-00 would minimize the impacts from deposition.

D. Vegetation Cover, Quantity, and Quality

There would be minor impacts on the vegetative cover, quantity, and quality because small amounts of vegetation would likely be disturbed from the concrete batch operation. In addition, particle deposition would occur on the surrounding vegetation. However, as explained in Section 8.F. of this EA, the Department determined that, due to the relatively small size and temporary nature of the operation, dispersion characteristics of particles and the area, and conditions placed in Permit #3379-00, any impacts from deposition would be minor. Also, because the water usage would be minimal (as described in Section 8.B. of this EA) and the associated soil disturbance would be minor corresponding vegetative impacts would also be minor.

E. Aesthetics

The proposed plant would be a relatively small industrial facility. The facility would be visible, including visible emissions from the plant. However, Permit #3379-00 would include conditions to control emissions, including visible emissions, from the plant. Operating the facility would also result in additional noise in the area. However, any increases upon existing noise levels in the area are expected to be minor and intermittent. Additionally, the facility would operate on an intermittent and seasonal basis. Therefore, any associated impacts upon aesthetics from the construction and use of the facility would be minor and short-lived.

F. Air Quality

Air quality impacts from the proposed project would be minor because Permit #3379-00 would limit the facility's opacity, as well as would require a fabric filter dust collector and a rubber boot load-out spout to control facility emissions. Furthermore, Permit #3379-00 would limit total emissions from Columbus's facility and any additional Columbus equipment operated at the site to 250 tons/year or less, excluding fugitive emissions. The permit would also require dust suppression to control fugitive emissions. Also, the plant would be operated intermittently and would have a facility production limit (thereby further reducing potential air quality impacts from the facility), and could operate at other locations.

The Department has determined that the proposed facility would be a minor source of emissions as defined under the Title V Operating Permit Program because the source's PTE was limited below the major source threshold level of 100 tons per year for any regulated pollutant (excluding fugitives, per the major source definition). Pollutant deposition from the facility would be minimal because the pollutants emitted would be widely dispersed (from factors such as wind speed and wind direction) and would have minimal deposition on the surrounding area (due to site topography of the area and minimal vegetative cover in the area). Pollutants would be well dispersed before reaching any water resource, aquatic life in the water resource, terrestrial life and soils surrounding the proposed operational site, humans working and living in the surrounding area, and agricultural production in the surrounding area. Therefore, air quality impacts from operating the proposed facility in this area would be intermittent and minor to the existing resources in the area of operation.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The Department, in an effort to assess any potential impacts to unique endangered, fragile, or limited environmental resources in this initial proposed area of operation, previously contacted the Montana Natural Heritage Program (MNHP). MNHP search results concluded there is one such environmental resource found within the surrounding area. The defined area of concern, in this case, includes the Section, Township, and Range where the proposed facility would locate with an additional 1-mile buffer.

One specie of concern was identified to have the potential of being within the defined 1-mile radius of the proposed operational site. However, the possible existence has been generalized from many miles of potential habitat. The specie of concern is the Great Blue Heron. Due to the relatively low levels of pollutants that would be emitted, dispersion characteristics of pollutants and the atmosphere, conditions that would be placed in Permit #3379-00, the Department determined that the chance of the project impacting any species of special concern would be minor.

H. Demands on Environmental Resources of Water, Air, and Energy

Due to the size of the facility, the concrete batch plant would only require small quantities of water, air, and energy for proper operation. Small quantities of water would be used for dust suppression and for the concrete batching operations. Approximately 20 gallons of water would be needed for every cubic yard of concrete produced. Water would also be used for dust suppression. Impacts to air resources would be minor because the source is small by industrial standards, with intermittent and seasonal operations, and because air pollutants generated by the facility would disperse. Ambient concentrations of air contaminants would comply with ambient standards. Energy would be provided by electrical power. Therefore, any impacts to water, air, and energy resources would be minor.

I. Historical and Archaeological Sites

The Department previously contacted the Montana Historical Society - State Historical Preservation Office (SHPO) in an effort to identify any historical and/or archaeological sites that may be present in the proposed area of construction/operation. Through those efforts, the Department concluded that there are no previously recorded historical or archaeological resources of concern within the proposed area of operations. Also, according to past correspondence from the Montana State Historic Preservation Office, given the previous disturbance in the area, there would be a low likelihood of adverse disturbance to any known archaeological or historic site. Therefore, no impacts upon historical or archaeological sites would be expected as a result of operating the proposed concrete batch plant.

J. Cumulative and Secondary Impacts

The proposed facility would cause minor cumulative and secondary impacts to the physical and biological aspects of the human environment because the facility would generate minor amounts of PM and PM₁₀ emissions. Noise would also be generated from the site. Emissions and noise would cause minimal disturbance because the site is located in an area that has good ventilation and is a relatively quiet industrial operation that would be located near a high traffic area. However, noise would be considered as having cumulative increases in noise, but minor increases on noise in the existing area. Additionally, this facility may be used in conjunction with another equipment operated by Columbus, but the combined emissions of these operations would be limited to 250 tons per year of any pollutant (excluding fugitive emissions) at the site. Overall, any impacts to the physical and biological aspects of the human environment would be minor.

9. *The following table summarizes the potential economic and social effects of the proposed project on the human environment. The “no action alternative” was discussed previously.*

		Major	Moderate	Minor	None	Unknown	Comments Included
A.	Social Structures and Mores				X		yes
B.	Cultural Uniqueness and Diversity				X		yes
C.	Local and State Tax Base and Tax Revenue			X			yes
D.	Agricultural or Industrial Production			X			yes
E.	Human Health			X			yes
F.	Access to and Quality of Recreational and Wilderness Activities			X			yes
G.	Quantity and Distribution of Employment			X			yes
H.	Distribution of Population				X		yes
I.	Demands for Government Services			X			yes
J.	Industrial and Commercial Activity			X			yes
K.	Locally Adopted Environmental Plans and Goals			X			yes
L.	Cumulative and Secondary Impacts			X			yes

SUMMARY OF COMMENTS ON POTENTIAL ECONOMIC AND SOCIAL EFFECTS: The Department has prepared the following comments.

A. Social Structures and Mores

The facility would cause no disruption to the social structures and mores in the area because of the location of the source, size of the source, portable and temporary nature of the source, and intermittent and seasonal operations of the source. The facility would be located on private land in a rural setting. Additionally, the facility would be a minor source of air pollution, would be a relatively small sized industrial operation, and would be required to operate under the conditions in Permit #3379-00. Also, the predominant use of the surrounding areas would not change as a result of this project. Thus, no impacts upon social structures or mores would result.

B. Cultural Uniqueness and Diversity

The cultural uniqueness and diversity of the area would not be impacted by the proposed facility because the proposed site is separated from the general population. Additionally, the facility would be portable/temporary in nature and would have seasonal and intermittent operations. Therefore, the predominant use of the surrounding area would not change as a result of this project.

C. Local and State Tax Base and Tax Revenue

The proposed facility would have little, if any, impact on the local and state tax base and tax revenue because the facility would be a relatively small industrial source and would operate seasonally and intermittently. The facility operations would require the use of three employees for this project. Thus, only minor impacts to the local and state tax base and revenue could be expected from the employees and facility production. Furthermore, the impacts to local tax base and revenue are expected to be minor because the source would also be portable and the money generated for taxes would be widespread.

D. Agricultural or Industrial Production

The facility would have only a minor impact on local industrial production since the facility would be a minor source of aggregate production, concrete production, and air emissions. Also, the facility would locate in an area adjacent to land that could be used for animal grazing and agricultural production. Therefore, because minimal deposition of air pollutants would occur on the surrounding

land (see Section 8.F of this EA), only minor and temporary effects on the surrounding vegetation (i.e. agricultural production) would occur. In addition, the facility operations would be temporary in nature and would be permitted with operational conditions and limitations that would minimize impacts upon surrounding vegetation.

E. Human Health

Permit #3379-00 would incorporate conditions to ensure that the permitted facility would be operated in compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health. As described in Section 8.F. of this EA, the air emissions from this facility would be minimized by the use of a fabric filter dust collector, a rubber boot load-out spout, water and water spray, and facility production limits that would be required by Permit #3379-00. Also, the facility would be operating on an intermittent basis and pollutants would be dispersed. Therefore, only minor impacts would be expected on human health from the proposed facility.

F. Access to and Quality of Recreational and Wilderness Activities

Noise from the facility would be minor because the facility would be small and would operate in an area removed from the general population, and adjacent to an existing interstate. As a result, the amount of noise from the facility operations would not create any additional impacts upon the quality of recreational and wilderness activities than was already created from the existing highway. Also, the facility would operate on a seasonal and intermittent basis on private land and would be a relatively minor industrial source of emissions. Therefore, any changes in the quality of recreational and wilderness activities created by operating the equipment at this site would be expected to be minor and intermittent.

G. Quantity and Distribution of Employment

The proposed facility would only require three employees to operate and would have seasonal and intermittent operations. No individuals would be expected to permanently relocate to this area of operation as a result of operating the proposed facility. Therefore, no effects upon the quantity and distribution of employment in this area would be expected.

H. Distribution of Population

The facility is a portable industrial facility that would only require three employees to operate. Therefore, any impacts upon the normal population distribution in the initially proposed area of operation or any future operating site would be minor and short-lived.

I. Demands of Government Services

Minor increases would be seen in traffic on existing roadways in the area while the facility operations are in progress. In addition, government services would be required for acquiring the appropriate permits for the proposed project and to verify compliance with the permits that would be issued. Demands for government services would be minor.

J. Industrial and Commercial Activity

The facility operation would represent only a minor increase in the industrial activity in the proposed area of operation because the source would be a relatively small industrial source that would be portable and temporary in nature. Any additional industrial or commercial activity as a result of the proposed operation is expected to be minor and short-lived.

K. Locally Adopted Environmental Plans and Goals

Columbus would be allowed, by permit, to operate in areas designated by EPA as attainment or unclassified. The permitted production limits and opacity limits would be protective of air quality while the facility is operating. Because the facility would be a small and portable source and because the facility would have intermittent and seasonal operations, any effects on locally adopted environmental plans and goals from operating the facility would be minor and short-lived.

L. Cumulative and Secondary Impacts

The facility operations would cause minor cumulative and secondary impacts to the social and economic aspects of the human environment in the immediate area of operation because the source is portable/temporary in nature. Further, no other industrial operations are expected to result from the permitting of this facility. Minor increases in traffic would have minor effects on local traffic in the immediate area. Because the source is relatively small and temporary, only minor economic impacts to the local economy would be expected from operating the facility. Further, this facility may be operated in conjunction with other equipment owned and operated by Columbus, but any cumulative impacts upon the social and economic aspects of the human environment would be minor and short-lived. Thus, only minor and temporary cumulative effects would result to the local economy.

Recommendation: An EIS is not required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: All potential effects resulting from construction and operation of the proposed facility are minor; therefore, an EIS is not required.

Other groups or agencies contacted or which may have overlapping jurisdiction: Department of Environmental Quality - Permitting and Compliance Division (Industrial and Energy Minerals Bureau); Montana Natural Heritage Program; and the State Historic Preservation Office (Montana Historical Society).

Individuals or groups contributing to this EA: Department of Environmental Quality (Air Resources Management Bureau and Industrial and Energy Minerals Bureau), Montana State Historic Preservation Office (Montana Historical Society).

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